

September 7, 2010

Ms. Barbara Hagg  
Town Accountant  
Town of Belmont  
19 Moore Street  
Belmont, MA 02478

Dear Barbara:

We are pleased to present the enclosed report summarizing the results of our actuarial valuation of the Town of Belmont postemployment health insurance benefit program as of July 1, 2010.

Our valuation was performed in accordance with the provisions contained in the GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45).

The principal results of our valuation are summarized in Section I. The Substantive Plan Provisions and Actuarial Methods and Assumptions are shown in Sections VI and VII, respectively. Section VIII summarizes the demographic profile of active employees and retirees.

The required disclosures under GASB 45 are presented in Section II.

Our best estimate health care cost trend assumptions are based on recent experience and anticipated future cost increases under the Town of Belmont medical plans. Section V illustrates the sensitivity of actuarial accrued liability and normal cost to a one percentage increase and decrease in the health care cost trend assumption for each future year.

Our actuarial valuation is based on a discount rate of 5.00% compounded annually. To illustrate the impact on cost of prefunding the Town's benefit liabilities, our report also includes valuation results based on an alternative 8.00% discount rate.

We also provide a 10-year forecast of both the Annual Required Contribution (ARC) and the Net OPEB Obligation in Sections III and IV, respectively.

Our calculations were based on participant census data and other information provided by the Town of Belmont and the benefit provisions of your medical plans as described in your benefit summaries. Our valuation is also based on medical plan rates provided in the worksheet "12-22-09 letter to Willis w/ OPEB backup".

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

Ms. Barbara Hagg  
September 7, 2010  
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We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

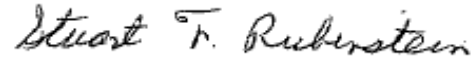
We appreciate this opportunity to be of service to the Town of Belmont. We are available to answer any questions with respect to our valuation.

Respectfully submitted,



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Linda L. Bournival, FSA  
Member, American Academy of Actuaries  
781-444-7121



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Stuart F. Rubinstein, FSA  
Member, American Academy of Actuaries  
617-351-7510

**TOWN OF BELMONT  
POSTEMPLOYMENT BENEFITS  
OTHER THAN PENSIONS  
ACTUARIAL VALUATION**

**July 1, 2010**

**Reported Submitted  
September 7, 2010**

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## *Executive Summary*

### **Background**

The Town of Belmont provides postemployment medical, dental and life insurance benefits to Town retirees and their covered dependents. The Town provides benefits for any employee who retires at age 55 with 10 years of creditable service or any age with 20 years of creditable service. Medical coverage continues to the spouse after the death of the retiree provided the spouse makes the required contributions.

### **GASB 45**

The Governmental Accounting Standards Board (GASB) is responsible for establishing accounting standards for governmental entities. Calculations developed in accordance with GASB standards are required when providing financial statements. The GASB has issued GASB Statement Number 45 (GASB 45) that dramatically changes the way the Town accounts for the cost of its postemployment insurance benefits.

GASB believes that postemployment benefits are a form of deferred compensation whose cost should be recognized while the employee actually renders services rather than when the actual benefits are paid, many years later. Ideally under the GASB standard the entire postemployment liability is recognized by the time an active participant begins to receive postemployment benefits. GASB 45's focus is on postemployment benefits other than pensions, such as medical, dental and life insurance benefits. Unlike pensions where sponsors are pre-funding for benefits due in the future, the impact of GASB 45 will be to significantly increase current cash pay-as-you-go expense.

The effective date for GASB 45 is a function of the Town's total annual revenues in the first fiscal year ending after June 15, 1999. We understand that this is your fiscal year that ended June 30, 1999, and that your related revenues were greater than \$10 million and less than \$100 million. As a result, the Town was required to comply with GASB 45 for the fiscal year beginning July 1, 2008.

### **Actuarial Valuation**

As of July 1, 2010, there are 750 active employees who may be eligible for benefits in the future and 512 retired employees and survivors who are currently receiving benefits. There are 81 retired employees included in the data submitted currently not covered under any medical plan or life insurance. Coverage is for individuals and families or individuals and spouses depending on the coverage selected. Summaries of the active and retired employees are included in Section VIII, Demographic Information.

Under the previous approach, the annual cost recognized is the annual premiums or benefits paid plus administrative expenses less any participant contributions paid towards the coverage. Under GASB 45, an annual cost for postemployment coverage is developed for any person who is currently receiving or who is currently actively employed and may be eligible to receive benefits in the future. In developing the GASB 45 cost, the payment of future benefits is determined using the current schedule of premiums modified to reflect the population and the fact that actual healthcare expenses are higher as individuals age. These age-adjusted costs are increased in the future under annual healthcare cost trend rate assumptions. The age-adjusted per capita costs utilized in this valuation are detailed in Section VII, Actuarial Methods and Assumptions.

### *Executive Summary*

It is important to understand that even though the Town charges participants for coverage based on the individual or family premium schedule presented in our report, in developing a liability for the Town, GASB requires that these premiums be adjusted as noted above. So in reality the plan premium represents less than 100% of the actual cost that is required to be recognized under the GASB standard.

### **Actuarial Assumptions**

The most important assumption for GASB 45 is the discount rate, which is used to discount future benefits to current age. GASB 45 requires that the discount rate accurately reflects the rate of return on assets dedicated to paying the retiree medical benefits. This means that a traditional pay-as-you-go system, which pays benefits from the Town's annual budget and not a dedicated trust, must use a discount rate close to 4%, the rate of return on cash. Full pre-funding by use of a dedicated trust with a mixture of stocks and bonds can employ a higher discount rate that accurately reflects the expected return on trust assets dedicated to pay retiree medical benefits. For the Town of Belmont, we selected a 5% discount rate to reflect the partial pre-funding of future payments. We show the sensitivity to the selection of the discount rate in the principal results of the July 1, 2010 valuation:

	<b>Partial Pre- Funded</b>	<b>Full Pre- Funded</b>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
<b>Present Value of Future Benefits</b>		
Pre-Medicare Gross Benefit	\$66,853,037	\$46,102,366
Pre-Medicare Participant Contributions	10,191,102	7,060,679
Net Pre-Medicare Benefit	\$56,661,935	\$39,041,687
Post - Medicare Gross Benefit	\$242,367,181	\$144,171,106
Post - Medicare Participant Contributions	60,399,574	35,322,562
Net Post - Medicare Benefit	\$181,967,607	\$108,848,544
<b>Total Present Value of Future Benefits</b>	<b>\$238,629,542</b>	<b>\$147,890,231</b>
<b>Actuarial Accrued Liability</b>		
Pre-Medicare Gross Benefit	\$47,908,304	\$36,651,936
Pre-Medicare Participant Contributions	7,327,228	5,627,066
Net Pre-Medicare Benefit	\$40,581,076	\$31,024,870
Post - Medicare Gross Benefit	\$192,680,064	\$125,224,379
Post - Medicare Participant Contributions	48,354,038	30,897,270
Net Post - Medicare Benefit	\$144,326,026	\$94,327,109
<b>Total Actuarial Accrued Liability</b>	<b>\$184,907,102</b>	<b>\$125,351,979</b>

**Town of Belmont**  
**Postemployment Benefits Other Than Pensions**  
**Actuarial Valuation as of July 1, 2010**

***Executive Summary***

**Normal Cost**

Pre-Medicare Gross Benefit	\$1,939,037	\$1,095,651
Pre-Medicare Participant Contributions	291,414	164,951
Net Pre-Medicare Benefit	\$1,647,623	\$930,700
Post - Medicare Gross Benefit	\$5,700,686	\$2,555,053
Post - Medicare Participant Contributions	1,388,942	601,743
Net Post - Medicare Benefit	\$4,311,744	\$1,953,310
<b>Total Normal Cost</b>	<b>\$5,959,367</b>	<b>\$2,884,010</b>

The annual expense under GASB 45 equals the Normal Cost plus the 30-year amortization of the unfunded actuarial accrued liability plus interest to the end of the fiscal year.

	<b>Partial Pre- Funded</b>	<b>Full Pre- Funded</b>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
Normal Cost	\$5,959,367	\$2,884,010
Unfunded Actuarial Accrued Liability	183,897,208	124,342,085
30-Year Amortization of Unfunded Actuarial Accrued Liabi	11,393,879	10,225,500
Interest	867,662	1,048,761
<b>Annual Required Contribution</b>	<b>\$18,220,908</b>	<b>\$14,158,271</b>

**Changes**

All plan provisions used in this valuation are the same as those used in the prior valuation. The discount rate used to discount future benefits to current age on a pay-as-you-go basis remains at 5%. Health care trend rates are assumed to be 10% in the near-term trending down to 5% in 2016. All assumptions used in this valuation are detailed in Section VII.

**Results**

The Annual Required Contribution for the fiscal year ending June 30, 2010 of \$16,827,151, using a discount rate of 5%, is greater than the cash pay-as-you-go expense of \$3,304,630. When the Annual Required Contribution exceeds employer contributions, a Net OPEB Obligation is created. The Net OPEB Obligation is recorded as a liability on the employer's balance sheet.

*Executive Summary*

**Actuarial Certification**

This report presents the results of the Actuarial Valuation for the Town of Belmont Postemployment Benefits Other Than Pensions as of July 1, 2010. The report presents the accounting and financial reporting information in accordance with Statement Number 45 of the Governmental Accounting Standards Board (GASB 45).

This valuation was performed using employee data and financial information provided to us by the Town. Although we did not audit the data used in the valuation, we believe that the information is complete and reliable.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions other than those explicitly applicable to the postemployment benefit plans are consistent with those used by the Belmont Contributory Retirement System's actuaries for the Retirement System pension valuations.

This report is intended for the sole use of the Town of Belmont and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

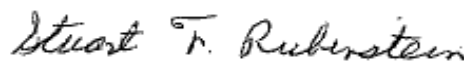
The undersigned credentialed actuaries are Members of the American Academy of Actuaries and together meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,



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Linda L. Bournival, FSA  
Member, American Academy of Actuaries  
781-444-7121



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Stuart F. Rubinstein, FSA  
Member, American Academy of Actuaries  
617-351-7510



**Section I - Principal Valuation Results**

The Actuarial Present Value of Future Benefits is the present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money. Below is the Actuarial Present Value of Future Benefits assuming a discount rate of 5%, the rate of return on cash, and 8%, the rate of return on a dedicated trust if the Town were to pre-fund benefits:

**Exhibit A - Actuarial Present Value of Future Benefits**

	<b>Partial Pre- Funded</b>	<b>Full Pre- Funded</b>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
<b>Current Active Employees</b>		
Pre-Medicare Gross Benefit	\$47,976,790	\$29,447,441
Pre-Medicare Participant Contributions	7,202,755	4,426,082
Net Pre-Medicare Benefit	\$40,774,035	\$25,021,359
Post - Medicare Gross Benefit	\$140,681,445	\$68,833,183
Post - Medicare Participant Contributions	34,221,806	16,165,421
Net Post - Medicare Benefit	\$106,459,639	\$52,667,762
<b>Total Current Active Employees</b>	<b>\$147,233,674</b>	<b>\$77,689,121</b>
<b>Current Retirees</b>		
Pre-Medicare Gross Benefit	\$18,876,247	\$16,654,925
Pre-Medicare Participant Contributions	2,988,347	2,634,597
Net Pre-Medicare Benefit	\$15,887,900	\$14,020,328
Post - Medicare Gross Benefit	\$101,685,736	\$75,337,923
Post - Medicare Participant Contributions	26,177,768	19,157,141
Net Post - Medicare Benefit	\$75,507,968	\$56,180,782
<b>Total Current Retirees</b>	<b>\$91,395,868</b>	<b>\$70,201,110</b>
<b>Total Present Value of Future Benefits (PVFB)</b>	<b>\$238,629,542</b>	<b>\$147,890,231</b>

**Section I - Principal Valuation Results**

The Actuarial Accrued Liability is the portion of the Actuarial Present Value of Future Benefits which is allocated to all periods prior to a valuation year and therefore is not provided for by future Normal Costs. Below is the Actuarial Accrued Liability assuming a discount rate of 5%, the rate of return on cash, and 8%, the rate of return on a dedicated trust if the Town were to pre-fund benefits:

**Exhibit B - Actuarial Accrued Liability**

	<b>Partial Pre- Funded</b>	<b>Full Pre- Funded</b>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
<b>Current Active Employees</b>		
Pre-Medicare Gross Benefit	\$29,032,057	\$19,997,011
Pre-Medicare Participant Contributions	4,338,881	2,992,469
Net Pre-Medicare Benefit	\$24,693,176	\$17,004,542
Post - Medicare Gross Benefit	\$90,994,328	\$49,886,456
Post - Medicare Participant Contributions	22,176,270	11,740,129
Net Post - Medicare Benefit	\$68,818,058	\$38,146,327
<b>Total Current Active Employees</b>	<b>\$93,511,234</b>	<b>\$55,150,869</b>
<b>Current Retirees</b>		
Pre-Medicare Gross Benefit	\$18,876,247	\$16,654,925
Pre-Medicare Participant Contributions	2,988,347	2,634,597
Net Pre-Medicare Benefit	\$15,887,900	\$14,020,328
Post - Medicare Gross Benefit	\$101,685,736	\$75,337,923
Post - Medicare Participant Contributions	26,177,768	19,157,141
Net Post - Medicare Benefit	\$75,507,968	\$56,180,782
<b>Total Current Retirees</b>	<b>\$91,395,868</b>	<b>\$70,201,110</b>
<b>Total Actuarial Accrued Liability (AAL)</b>	<b>\$184,907,102</b>	<b>\$125,351,979</b>

**Section I - Principal Valuation Results**

The Normal Cost is the portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year. Below is the Normal Cost assuming a discount rate of 5%, the rate of return on cash, and 8%, the rate of return on a dedicated trust if the Town were to pre-fund benefits:

**Exhibit C - Normal Cost**

	<u>Partial Pre- Funded</u>	<u>Full Pre- Funded</u>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
<b>Current Active Employees</b>		
Pre-Medicare Gross Benefit	\$1,939,037	\$1,095,651
Pre-Medicare Participant Contributions	291,414	164,951
Net Pre-Medicare Benefit	\$1,647,623	\$930,700
 Post - Medicare Gross Benefit	 \$5,700,686	 \$2,555,053
Post - Medicare Participant Contributions	1,388,942	601,743
Net Post - Medicare Benefit	\$4,311,744	\$1,953,310
 <b>Total Current Active Employees</b>	 \$5,959,367	 \$2,884,010
 <b>Current Retirees</b>		
Pre-Medicare Gross Benefit	\$0	\$0
Pre-Medicare Participant Contributions	0	0
Net Pre-Medicare Benefit	\$0	\$0
 Post - Medicare Gross Benefit	 \$0	 \$0
Post - Medicare Participant Contributions	0	0
Net Post - Medicare Benefit	\$0	\$0
 <b>Total Current Retirees</b>	 \$0	 \$0
 <b>Total Normal Cost (NC)</b>	 \$5,959,367	 \$2,884,010

**Section I - Principal Valuation Results**

Under GASB 45, the Annual Required Contribution (ARC) of the employer equals the Normal Cost plus a provision for amortizing the Unfunded Actuarial Accrued Liability. We have assumed level dollar amortization over the maximum acceptable amortization period of 30 years. For the period beginning July 1, 2010, the ARC, calculated under the parameters of this actuarial valuation, would be:

**Exhibit D - Annual Required Contribution**

	<u>Partial Pre- Funded</u>	<u>Full Pre- Funded</u>
<b>Discount Rate</b>	<b>5%</b>	<b>8%</b>
1. Normal Cost	\$5,959,367	\$2,884,010
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$184,907,102	\$125,351,979
b. Actuarial Value of Plan Assets	\$1,009,894	\$1,009,894
c. Unfunded Actuarial Accrued Liability	\$183,897,208	\$124,342,085
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	\$183,897,208	\$124,342,085
b. Amortization Period	30	30
c. Factor Increasing Rate	0.0%	0.0%
d. Amortization Factor	16.14	12.16
e. Amortization Amount (3.a. / 3.d.)	\$11,393,879	\$10,225,500
4. Interest	\$867,662	\$1,048,761
5. Annual Required Contribution (1. + 3.e. + 4.)	\$18,220,908	\$14,158,271

**Section II - GASB 45 Accounting Disclosures**

GASB 45 requires disclosure of the annual OPEB cost, the Net OPEB Obligation and the Schedule of Funding Progress. In addition, information about the Actuarial Methods and Assumptions used in the valuation and a summary of the Substantive Plan Provisions are disclosed, which are provided in Sections VII and VI, respectively.

**Annual OPEB Cost and Net OPEB Obligation**

Fiscal Year Ending	6/30/2009	6/30/2010
1. Annual Required Contribution	\$16,827,151	\$16,827,151
2. Interest on Net OPEB Obligation	0	671,922
3. Adjustment to annual required contribution	0	832,617
4. Annual OPEB cost/(expense)	\$16,827,151	\$16,666,456
5. Employer contributions made*	3,388,713	3,304,630
6. Change in Net OPEB Obligation	\$13,438,438	\$13,361,826
7. Net OPEB Obligation - beginning of year	\$0	\$13,438,438
8. Net OPEB Obligation - end of year	\$13,438,438	\$26,800,264

\* Information received from the Town of Belmont.

**Plan History**

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Increase in Net OPEB Obligation
6/30/2010	16,666,456	20%	13,361,826
6/30/2009	16,827,151	20%	13,438,438

**Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) / c)
7/1/2010	1,009,894	184,907,102	183,897,208	0.55%	43,878,648	419.1%
7/1/2008	501,409	166,550,323	166,048,914	0.30%	33,252,323	499.4%

**Section III - 10-Year Forecast of Annual Required Contributions**

Fiscal Year, July 1	Normal Cost	Actuarial Accrued Liability	Assets	Unfunded Actuarial Accrued Liability (UAAL)	Expected Benefit Payments	Interest on UAAL	Contributions	Amortization Amount	Interest	ARC
2010	5,959,367	184,907,102	1,009,894	183,897,208	7,571,592	9,354,034	7,571,592	11,393,879	867,662	18,220,908
2011	6,257,335	192,648,911	1,060,389	191,588,522	8,198,567	9,740,348	8,198,567	11,870,416	906,388	19,034,139
2012	6,570,202	200,448,027	1,113,408	199,334,619	8,883,176	10,128,832	8,883,176	12,350,348	946,028	19,866,578
2013	6,898,712	208,263,885	1,169,078	207,094,807	9,426,622	10,522,464	9,426,622	12,831,153	986,493	20,716,358
2014	7,243,648	216,258,439	1,227,532	215,030,907	9,837,011	10,929,179	9,837,011	13,322,857	1,028,325	21,594,830
2015	7,605,830	224,594,254	1,288,909	223,305,345	10,253,134	11,353,676	10,253,134	13,835,523	1,072,068	22,513,421
2016	7,986,122	233,300,626	1,353,354	231,947,272	10,448,359	11,803,128	10,448,359	14,370,959	1,117,854	23,474,935
2017	8,385,428	242,641,518	1,421,022	241,220,496	10,722,683	12,283,280	10,722,683	14,945,508	1,166,547	24,497,483
2018	8,804,699	252,587,543	1,492,073	251,095,470	10,975,719	12,795,219	10,975,719	15,557,340	1,218,102	25,580,141
2019	9,244,934	263,211,741	1,566,677	261,645,064	11,232,398	13,342,024	11,232,398	16,210,971	1,272,795	26,728,700

Notes:

1. Normal Cost is assumed to increase annually by the discount rate of 5.00%.
2. Unfunded Actuarial Accrued Liability, end of year, equals Unfunded Actuarial Accrued Liability, beginning of year, plus Normal Cost and Interest, less Expected Benefit Payments.
3. Interest on UAAL is computed on the Unfunded Actuarial Accrued Liability, Normal Cost and 1/2 Expected Benefit Payments.
4. Amortization Amount is the amount necessary to amortize the Unfunded Actuarial Accrued Liability over 30 years at a discount rate of 5.00%.
5. Interest is computed on the Normal Cost and the Amortization Amount.
6. The ARC (Annual Required Contribution) is the Normal Cost plus the Amortization Amount plus Interest.

**Town of Belmont**  
**Postemployment Benefits Other Than Pensions**  
**Actuarial Valuation as of July 1, 2010**

***Section IV - 10-Year Forecast of Net OPEB Obligation***

Fiscal Year, July 1	ARC	Interest on Net OPEB Obligation	ARC Adjustment	Amortization Factor	OPEB Cost	Contributions	Change in Net OPEB Obligation	Net OPEB Obligation Balance
2008					16,827,151	3,388,713	13,438,438	13,438,438
2009					16,666,456	3,304,630	13,361,826	26,800,264
2010	18,220,908	1,340,013	1,743,674	15.37	17,817,247	7,571,592	10,245,655	37,045,919
2011	19,034,139	1,852,296	2,410,275	15.37	18,476,160	8,198,567	10,277,593	47,323,512
2012	19,866,578	2,366,176	3,078,953	15.37	19,153,801	8,883,176	10,270,625	57,594,137
2013	20,716,358	2,879,707	3,747,179	15.37	19,848,886	9,426,622	10,422,264	68,016,401
2014	21,594,830	3,400,820	4,425,270	15.37	20,570,380	9,837,011	10,733,369	78,749,769
2015	22,513,421	3,937,488	5,123,602	15.37	21,327,307	10,253,134	11,074,173	89,823,942
2016	23,474,935	4,491,197	5,844,108	15.37	22,122,024	10,448,359	11,673,665	101,497,608
2017	24,497,483	5,074,880	6,603,618	15.37	22,968,745	10,722,683	12,246,062	113,743,670
2018	25,580,141	5,687,183	7,400,369	15.37	23,866,955	10,975,719	12,891,236	126,634,905
2019	26,728,700	6,331,745	8,239,096	15.37	24,821,349	11,232,398	13,588,951	140,223,856

Notes:

1. ARC and Contributions are from 10-Year Forecast of Annual Required Contribution.
2. Interest on Net OPEB Obligation is computed on the prior year Net OPEB Obligation Balance at the discount rate of 5.00%.
3. ARC Adjustment is the prior year Net OPEB Obligation Balance amortized over 30 years at the discount rate of 5.00%.
4. OPEB Cost is the ARC plus Interest on Net OPEB Obligation less ARC Adjustment.
5. Change in Net OPEB Obligation is the difference between the OPEB Cost and Contribution.
6. Net OPEB Obligation is the prior year Net OPEB Obligation Balance plus Change in Net OPEB Obligation.

**Section V - Sensitivity Analysis**

Below we illustrate the sensitivity of Actuarial Accrued Liability to a one percentage increase and decrease in health care cost trend assumption for each future year:

**Exhibit E - Sensitivity Analysis of Actuarial Accrued Liability**

	<u>Assumed Trend</u>	<u>Trend +1%</u>	<u>Trend -1%</u>
<b>Discount Rate</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>Current Active Employees</b>			
Pre-Medicare Gross Benefit	\$29,032,057	\$33,156,008	\$25,569,270
Pre-Medicare Participant Contributions	4,338,881	4,951,737	3,823,977
Net Pre-Medicare Benefit	\$24,693,176	\$28,204,271	\$21,745,293
 Post - Medicare Gross Benefit	 \$90,994,328	 \$113,886,049	 \$73,663,475
Post - Medicare Participant Contributions	22,176,270	28,068,300	17,744,261
Net Post - Medicare Benefit	\$68,818,058	\$85,817,749	\$55,919,214
 <b>Total Current Active Employees</b>	 \$93,511,234	 \$114,022,020	 \$77,664,507
 <b>Current Retirees</b>			
Pre-Medicare Gross Benefit	\$18,876,247	\$19,653,874	\$18,159,245
Pre-Medicare Participant Contributions	2,988,347	3,112,172	2,874,148
Net Pre-Medicare Benefit	\$15,887,900	\$16,541,702	\$15,285,097
 Post - Medicare Gross Benefit	 \$101,685,736	 \$113,300,515	 \$91,831,708
Post - Medicare Participant Contributions	26,177,768	29,280,235	23,543,370
Net Post - Medicare Benefit	\$75,507,968	\$84,020,280	\$68,288,338
 <b>Total Current Retirees</b>	 \$91,395,868	 \$100,561,982	 \$83,573,435
 <b>Total Actuarial Accrued Liability (AAL)</b>	 \$184,907,102	 \$214,584,002	 \$161,237,942



**Section V - Sensitivity Analysis**

Below we illustrate the sensitivity of Normal Cost to a one percentage increase and decrease in health care cost trend assumption for each future year:

**Exhibit F - Sensitivity Analysis of Normal Cost**

	<u>Assumed Trend</u>	<u>Trend +1%</u>	<u>Trend -1%</u>
<b>Discount Rate</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>Current Active Employees</b>			
Pre-Medicare Gross Benefit	\$1,939,037	\$2,371,593	\$1,594,913
Pre-Medicare Participant Contributions	291,414	356,079	239,918
Net Pre-Medicare Benefit	\$1,647,623	\$2,015,514	\$1,354,995
Post - Medicare Gross Benefit	\$5,700,686	\$7,671,434	\$4,298,756
Post - Medicare Participant Contributions	1,388,942	1,889,950	1,035,460
Net Post - Medicare Benefit	\$4,311,744	\$5,781,484	\$3,263,296
<b>Total Current Active Employees</b>	<b>\$5,959,367</b>	<b>\$7,796,998</b>	<b>\$4,618,291</b>
<b>Current Retirees</b>			
Pre-Medicare Gross Benefit	\$0	\$0	\$0
Pre-Medicare Participant Contributions	0	0	0
Net Pre-Medicare Benefit	\$0	\$0	\$0
Post - Medicare Gross Benefit	\$0	\$0	\$0
Post - Medicare Participant Contributions	0	0	0
Net Post - Medicare Benefit	\$0	\$0	\$0
<b>Total Current Retirees</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Normal Cost</b>	<b>\$5,959,367</b>	<b>\$7,796,998</b>	<b>\$4,618,291</b>

**Section VI - Substantive Plan Provisions**

**Eligibility:** Retirement at age 55 with 10 years of creditable service or any age with 20 years of creditable service.

**Medical Premium Rates:** The total annual cost for the year beginning July 1, 2010 by plan are shown

<u>Non-Medicare Plans</u>	<u>Individual</u>	<u>Family</u>
Harvard Pilgrim PPO	11,379	30,951
Harvard Pilgrim HMO	7,126	19,305
<u>Medicare Plans</u>		
Medicare Enhance	6,350	
First Seniority	3,566	

**Participant Contributions:** Eligible retirees not participating in Medicare and their spouses contribute 20% of premium rates for the HMO plan and 50% of premium rates for the PPO plan. Medicare-eligible retirees and their spouses contribute 50% of the cost of the Medicare Enhance Supplement and First Seniority Plan.

**Continuation of Coverage to Spouse After Death of Retiree:** Surviving spouse may continue coverage for lifetime by paying the required percentage of the medical plan premium rate.

**Life Insurance:** Retired employees are eligible for a \$2,000 life insurance benefit.

**Life Insurance Contributions:** Retired employees electing life insurance contribute \$28.44 annually for the benefit.

**Section VII - Actuarial Methods and Assumptions**

**Valuation Date:** July 1, 2010

**Discount Rates:** 5.00% partial pre-funded  
8.00% full pre-funded

**Amortization Method:** Level dollar amount over thirty (30) years on an open amortization period.

**Health Care Cost Trend Rates:**

<u>Year</u>	<u>Current Valuation</u>	<u>Previous Valuation</u>
2008	N/A	10.00%
2009	N/A	9.00%
2010	10.00%	8.00%
2011	9.00%	7.00%
2012	8.00%	6.00%
2013	7.00%	5.00%
2014	6.00%	5.00%
Ultimate	5.00%	5.00%

**Mortality Table:** RP-2000 Mortality Table.

**Turnover Rates:** Illustrative turnover rates are shown below:

<u>Years of Service</u>	<u>General</u>	<u>Public Safety</u>
0	15.0%	1.5%
1	12.0%	1.5%
2	10.0%	1.5%
3	9.0%	1.5%
4	8.0%	1.5%
5	7.6%	1.5%
10	5.4%	1.5%
15	3.3%	0.0%
20	2.0%	0.0%
25	1.0%	0.0%
30	0.0%	0.0%

**Disability Rates:** None

**Section VII - Actuarial Methods and Assumptions**

**Retirement Rates:** Illustrative retirement rates are shown below:

<u>Age</u>	<u>General</u>		<u>Public Safety</u>
	<u>Male</u>	<u>Female</u>	
45	0.0%	0.0%	1.0%
50	1.0%	1.5%	2.0%
55	2.0%	5.5%	15.0%
60	12.0%	5.0%	20.0%
62	30.0%	15.0%	25.0%
65	100.0%	100.0%	100.0%

**Medical Plan Participation:** 85% of eligible retirees will elect to participate.

**Life Insurance Participation:** 60% of eligible retirees will elect to participate.

**Dependent Status:** Male spouses are assumed to be three years older and female spouses are assumed to be three years younger than the retired employee.

35% of retired employees are assumed to retire with a covered spouse.

**Medical Per Capita Costs:** Annual per capita costs for the fiscal year beginning July 1, 2010 are as follows:

<u>Age</u>	<u>Incurred Medical Costs</u>
Under 50	15,331
50-54	15,331
55-59	18,191
60-64	22,089
65-69	17,613
70-74	9,388
75-79	8,011
80-84	7,123
85-89	10,327
90+	11,599

**Section VII - Actuarial Methods and Assumptions**

**Medicare Part B Premiums:**

The Town of Belmont pays 50% of Medicare Part B premiums for retirees and spouses participating in Medicare. For the year beginning July 1, 2010, the monthly Medicare Part B premium was assumed to be \$98.60.

**Participant Contributions:** Annual per capita participant contributions for the fiscal year beginning July 1, 2010 are as follows:

	<u>Contributions</u>
Non-Medicare	3,234
Medicare	2,802

**Section 18 of Chapter 32B:** We understand that the Town has adopted Section 18 of Chapter 32B of the Massachusetts General Laws, which requires all Medicare-eligible retirees to enroll in a Medicare supplemental plan.

**Actuarial Cost Method:** Projected Unit Credit. The costs of each employee's postemployment benefits are allocated on a pro rata basis from the employee's date of hire to the date the employee is fully eligible for benefits.

**Employee Data:** Employee and retiree data were submitted by the Town. We made reasonable adjustments for missing or invalid data.

*Section VIII - Demographic Information*

**Active Employees by Age and Years of Service as of July 1, 2010**

<u>Age</u>	<u>Years of Service</u>									<u>Total</u>	<u>Percent</u>
	<u>0 to 4</u>	<u>5 to 9</u>	<u>10 to 14</u>	<u>15 to 19</u>	<u>20 to 24</u>	<u>25 to 29</u>	<u>30 to 34</u>	<u>35 to 39</u>	<u>40 &amp; up</u>		
Under 25	13	3	0	0	0	0	0	0	0	16	2%
25 to 29	87	21	4	0	0	0	0	0	0	112	15%
30 to 34	46	50	5	0	0	0	0	0	0	101	13%
35 to 39	12	29	26	1	0	0	0	0	0	68	9%
40 to 44	19	20	22	12	3	1	0	0	0	77	10%
45 to 49	16	16	22	7	9	11	0	0	0	81	11%
50 to 54	18	11	30	10	12	12	3	0	0	96	14%
55 to 59	16	13	22	12	7	6	6	2	0	84	11%
60 to 64	7	13	11	15	10	6	7	4	3	76	10%
65 to 69	0	10	4	2	2	2	2	2	1	25	3%
70 & up	0	3	3	2	0	2	2	2	0	14	2%
Total	234	189	149	61	43	40	20	10	4	750	
Percent	31%	25%	20%	8%	6%	5%	3%	1%	1%		100%

*Section VIII - Demographic Information*

**Retired Plan Participants and Survivors as of July 1, 2010**

Age	Harvard Pilgrim HMO	Harvard Pilgrim PPO	Medicare Enhance	First Seniority	Life only	Total
Under 40	0	0	0	0	0	0
40 to 44	1	1	0	0	0	2
45 to 49	1	0	0	0	0	1
50 to 54	3	1	1	0	0	5
55 to 59	18	0	0	0	1	19
60 to 64	63	10	0	0	5	78
65 to 69	22	7	43	33	6	111
70 to 74	6	8	47	20	6	87
75 to 79	3	1	55	11	6	76
80 to 84	0	2	46	13	5	66
85 to 89	1	0	21	8	10	40
90+	2	3	17	2	3	27
Total	120	33	230	87	42	512

In addition, 81 retirees were included in the data with neither medical nor life coverage.

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**Section IX - Glossary of Terms**

**Actuarial Accrued Liability** – The portion of the Actuarial Present Value of future benefits which is allocated to all periods prior to a valuation year and therefore is not provided by future Normal Costs.

**Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting OPEB costs, such as mortality, withdrawal, disablement and retirement; changes in compensation and Government provided pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

**Actuarial Present Value of Future Benefits** – The present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money.

**Actuarial Valuation** – the determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values for an OPEB plan.

**Actuarial Value of Assets** – The value of plan assets used in an actuarial valuation. The Actuarial Value of Assets may reflect smoothing techniques intended to dampen year-to-year fluctuations in the market value of assets.

**Annual OPEB Cost** - The accrual basis annual cost for the OPEB plan sponsored by the employer. In the year of implementation of GASB 45, the Annual OPEB Cost equals the ARC. In subsequent years, if an employer has a Net OPEB Obligation, Annual OPEB Cost equals the ARC plus one year's interest on the Net OPEB Obligation plus an adjustment to the ARC.

**Annual Required Contribution (ARC)** – Includes the employer's Normal Cost and a provision for amortizing the Unfunded Actuarial Accrued Liability.

**Explicit Subsidy** – The difference between (a) the blended rates based on combined active and retired member experience and (b) actual cash contributions made by the employer.

**Funded Ratio** – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

**Health Cost Trend Rate** – The rate of change in per capita health claims cost over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

**Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group and (b) the blended rates based on combined active and retired member experience.

**Net OPEB Obligation** – The cumulative excess since adoption of GASB 45 of Annual OPEB Cost over the employer's contributions to the plan.

**Normal Cost** – The portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year.



***Section IX - Glossary of Terms***

**OPEB** – Other Postemployment Benefits including medical, dental, vision, hearing and life insurance benefits.

**Plan Assets** – Investments segregated and restricted in a trust or similar agreement under which:

- employer contributions to the trust are irrevocable,
- assets are dedicated to providing plan benefits, and
- assets are legally protected from creditors.

**Pay-As-You-Go** – A method of financing an OPEB plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

**Present Value of Future Benefits** – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

**Projected Unit Credit Actuarial Cost Method** – A method under which the projected benefits of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. Projected Unit Credit is one of the actuarial cost methods allowed and most often used for developing liabilities under GASB 45.

**Substantive Plan** – The terms of an OPEB plan as understood by the employer and plan members.

**Unfunded Actuarial Accrued Liability** – The excess of Actuarial Accrued Liability over the Actuarial Value of Assets.

**Town of Belmont**  
**Postemployment Benefits Other Than Pensions**  
**Actuarial Valuation as of July 1, 2010**

**Section X - Unit Allocation**

Unit	General	School	Public Safety	Light	Sewer	Water	Total
<b>Summary of Member Data</b>							
Active Members	89	514	93	30	10	14	750
Average Age	54	43	43	44	44	48	44
Average Service	15	9	14	13	9	13	11
Retired Members and Survivors	92	316	139	30	1	15	593
Average Age	73	73	72	73	67	73	73
<b>Actuarial Accrued Liability - 5%</b>							
Active Employees	15,203,154	51,983,662	17,967,196	4,858,918	1,187,688	2,310,616	93,511,234
Retired Employees	14,691,560	43,406,105	26,785,985	4,004,011	346,001	2,162,206	91,395,868
Total	29,894,714	95,389,767	44,753,181	8,862,929	1,533,689	4,472,822	184,907,102
<b>Actuarial Value of Plan Assets</b>							
Contributions-to-date	114,278	364,645	171,077	136,634	100,000	100,000	986,634
Interest-to-date	2,694	8,596	4,033	3,221	2,358	2,358	23,260
Actuarial Value of Plan Assets	116,972	373,241	175,110	139,855	102,358	102,358	1,009,894
<b>Unfunded Actuarial Accrued Liability</b>	<b>29,777,742</b>	<b>95,016,526</b>	<b>44,578,071</b>	<b>8,723,074</b>	<b>1,431,331</b>	<b>4,370,464</b>	<b>183,897,208</b>
<b>Annual Required Contribution (ARC) - 5%</b>							
Normal Cost	576,014	3,971,288	1,029,185	167,477	99,826	115,577	5,959,367
Amortization of UAL	1,844,965	5,887,022	2,761,962	540,463	88,682	270,785	11,393,879
Interest	121,049	492,916	189,557	35,397	9,425	19,318	867,662
Total	2,542,028	10,351,226	3,980,704	743,337	197,933	405,680	18,220,908